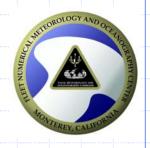# RuleBot Proposal

Fleet Numerical Meteorology and Oceanography Center, Monterey, CA

Vision Statement

◆ An automated non-GUI agent will interact with data oriented services.

Goal and Objective

- Provide an assured rule-driven automated agent to subscribe/publish to data sources.

- Develop RuleBot Server and Agent to leverage the NESSO Assurance Layer.

Today's Situation

◆ Current TFW architecture does not allow for data source access by non-Web browser applications.

◆ Access by non-GUI applications needs to be secure.

Available Options

◆ New Development

◆ Enhanced spiral development of PKI enabled data transfer (PEDX)

    ■ Advantage – Build on prior development
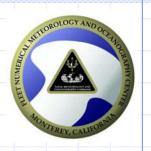
Recommendation

- Develop RuleBot prototype and implement on the Blue Diamond laboratory equipment.

- Result will provide a secure subscription/publication capability to applications through the use of a thin client agent and server.

Proposed RuleBot Functions

- Agent with authorization, authentication, and certificate management.
- Implement a rules-based subscribe/publish architecture for any data source
- Publish information to a data oriented service
- Subscribe to a data oriented service
- Monitor subscription/publication status
- Configure the RuleBot Agent
- User configure the subscription service

Limitations and Restrictions

- NESSO Assurance Layer must be operational.
- Thin client for RuleBot agent must be certified.

System Data Flow Diagram

Presentation   **Business Logic**   **Data**

NESSO Assurance Layer

Client

Navy Enterprise Portal

Data

User Facing Service

User Facing Service

User Facing Service

RuleBot Server

Data oriented services exchange (publish, subscribe, monitor data)

Data Access SOAP XML

Remote DOS Applications

Local RuleBot Agent

Legacy Data

Data Handlers Helper Apps

DOS Applications

RuleBot-
- Agents are aware of one another
- Provide messaging service
- Use assured programming techniques to guarantee no buffer overflows possible
- Fully TFW compiant

Data access to Data Sources in native formats, like SQL, J2EE, and ODBC must remain local due to NMCI security constraints.

Proposed Schedule

ID	ℹ	Task Name	Duration	Start	Finish
1		**Design RuleBot**	20 days	Thu 10/3/02	Wed 10/30/02
2		**PDR**	0 days	Wed 10/30/02	Wed 10/30/02
3		**Development**	52 days	Thu 10/31/02	Fri 1/10/03
4		**IDR**	0 days	Wed 12/11/02	Wed 12/11/02
5		**Implementation**	**20 days**	**Mon 1/13/03**	**Fri 2/7/03**
6		Integration	5 days	Mon 1/13/03	Fri 1/17/03
7		Unit Testing	5 days	Mon 1/20/03	Fri 1/24/03
8		Rework #1	3 days	Mon 1/27/03	Wed 1/29/03
9		Integration Testing	7 days	Thu 1/30/03	Fri 2/7/03
10		**CDR**	0 days	Fri 2/7/03	Fri 2/7/03
11		**Rework #2**	3 days	Mon 2/10/03	Wed 2/12/03
12		**Package and Delivery**	5 days	Thu 2/13/03	Wed 2/19/03
13		**Lab Integration**	10 days	Thu 2/20/03	Wed 3/5/03
14		**Beta Capability**	0 days	Wed 3/5/03	Wed 3/5/03
15		**Develop Integrated Applications**	150 days	Thu 3/6/03	Wed 10/1/03
16		**IOC**	0 days	Wed 10/1/03	Wed 10/1/03

Funding Details

Item	Estimate ($K)
Hardware & Software	10
Labor	405
Travel	5
TOTAL:	$420K

Questions?

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